



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/487,594 | 01/19/2000 | Eberhard Kuebler | 225/48391 | 3340 |

7590 06/24/2005

CROWELL MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

AVERY, BRIDGET D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3618

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 09/487,594 | Applicant(s) KUEBLER ET AL. | |
| | Examiner Bridget Avery | Art Unit 3618 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

7

DETAILED ACTION

Election/Restrictions

1. Newly submitted claim 19 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 19 is directed to a system having a plurality of power consumers and a power supply system including a plurality of individual power sources when applicant's originally filed claims are directed to a single power consumer and a fuel cell system, as define in claim 1.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 19 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartel et al. (US Patent 6,056,076) in view of Klein (US Patent 5,540,831).

Bartel teaches a decentralized power supply system for a vehicle including an emergency unit including an electric motor, an emergency battery, actuators, a control

Art Unit: 3618

unit, etc... positioned on or in a vehicle door/body module/structural component. The control unit controls the window lifters (5) and the door locks (4). The vehicle further includes a starter battery (10) that may be charged by the alternator or generator (other power generators) of the vehicle.

Bartel lacks the teaching of a fuel cell on or in the vehicle door.

Klein teaches an electric vehicle and a fuel cell in column 6, lines 46-55.

Based on the teachings of Klein, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to modify the system of Bartel to include a fuel cell system, in place of the motor and battery combination, to increase the reliability of the emergency system since fuel cells are known to offer the advantages of low atmospheric pollution, high efficiency, compactness and modularity.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bartel et al. ('076) and Klein ('831) as applied to claim 2 above, and further in view of Terada et al. (US Patent 4,645,159).

The combination of Bartel et al. and Klein teach the features described above.

The combination of Bartel et al. and Klein lack the teaching of a fuel cell on or in a seat.

Terada et al. teaches a powered seat adjusting device including a motor (25).

Based on the teachings of Terada et al., it would have been obvious to one having ordinary skill in the art, to change the motor powered seat to a fuel cell powered

Art Unit: 3618

seat to increase the reliability of the system since fuel cells are known to offer the advantages of low atmospheric pollution, high efficiency, compactness and modularity.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bartel et al. ('076) and Klein ('831) as applied to claim 1 above, and further in view of Jirmann (DE 19927518).

The combination of Bartel et al. and Klein teach the features described above.

The combination of Bartel et al. and Klein lack the teaching of a fuel cell on or in a seat.

Jirmann teaches an air-conditioning compressor connected with a fuel cell.

Based on the teachings of Jirmann, it would have been obvious to one having ordinary skill in the art, to modify the combination of Bartel et al. and Klein to include a compressor connected with a fuel cell as a secondary unit to increase the reliability of the system since fuel cells are known to offer the advantages of low atmospheric pollution, high efficiency, compactness and modularity.

5. Claims 6, 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartel et al. ('076) and Klein ('831) as applied to claim 1 above, and further in view of Mizuno et al. (US Patent 5,193,635).

The combination of Bartel et al. and Klein teach the features described above.

The combination of Bartel et al. and Klein lack the teaching of an assigned fuel supply system and an exchangeable fuel storage.

Art Unit: 3618

Mizuno et al. teaches a vehicle with a fuel cell system including a reformer and a fuel storage tank (31).

Based on the teachings of Mizuno et al., it would have been obvious to one having ordinary skill in the art, to modify the combination of Bartel et al. and Klein to include a reformer and a fuel storage tank to advantageously extend the possible service life of the electric consuming device. Re claim 7, it would have been obvious to one having ordinary skill in the art, at the time the invention was made to provide and exchangeable fuel storage device, since it has been held that making an old device portable or movable without producing any new and unexpected result involves only routine skill in the art.

6. Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartel et al. ('076), Klein ('831) and Mizuno et al. ('635) as applied to claim 7 above, and further in view of Wilson et al. (US Patent 6,207,310).

The combination of Bartel et al. and Klein teach the features described above.

The combination of Bartel et al. and Klein lack the teaching of a hydrogen cartridge.

Wilson et al. teach fuel cells that form a hydrogen cartridge (see column 1, lines 26-40).

Based on the teachings of Wilson et al., it would have been obvious to one having ordinary skill in the art, to provide a fuel cell cartridge to enhance power output. Re claim 12, it would have been obvious to one having ordinary skill in the art, at the

time the invention was made to provide and exchangeable fuel storage device, since it has been held that making an old device portable or movable without producing any new and unexpected result involves only routine skill in the art.

Response to Arguments

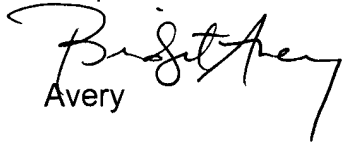
7. Applicant's arguments with respect to claims 1-10, 12 and 17-19 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed April 4, 2005 with regard to Bartel et al. ('076) have been fully considered but they are not persuasive. The examiner agrees that Bartel et al. ('076) "derives its energy from the vehicle battery or the vehicle alternator", however, the fact that the "decentralized emergency battery is connected to "operate only the basic components when an undervoltage is detected by the control unit to indicate a **failure of the starter battery**, the removal or some other inability of the starter battery to supply the requisite voltage to maintain normal operation. Bartel et al. further states "since the vehicle door locks are each electrically operable via an electric motor drive both for unlocking and for shifting into the antitheft mode, when the basic components are said to be operable by the [emergency] battery 11, we mean to indicate that both of these functions will remain intact for all door locks **even upon failure of the starter battery**, as clearly taught in column 5, lines 12-30. Therefore, upon failure of the starter battery, the emergency battery is clearly "electrically isolated from the other power generators of the power supply system".

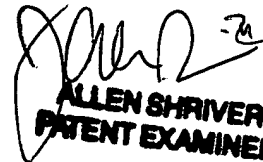
Art Unit: 3618

Conclusion

8. Any inquiry concerning this communication should be directed to Bridget Avery at telephone number 703-308-2086.


Avery

June 9, 2005

 6/22/05
ALLEN SHRIVER
PATENT EXAMINER